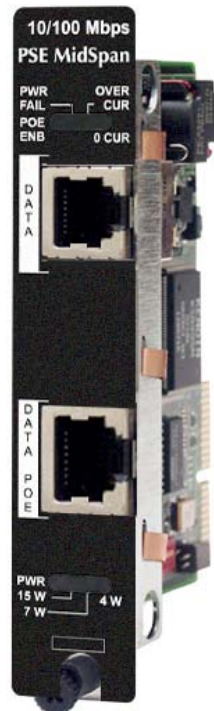# iMcV-PSE-MidSpan

Operation Manual

FCC Radio Frequency Interference Statement

This equipment has been tested and found to comply with the limits for a Class B computing device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which the user will be required to correct the interference at his own expense.

Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

The use of non-shielded I/O cables may not guarantee compliance with FCC RFI limits. This digital apparatus does not exceed the Class B limits for radio noise emission from digital apparatus set out in the Radio Interference Regulation of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de classe B prescrites dans le Règlement sur le brouillage radioélectrique publié par le ministère des Communications du Canada.

Warranty

IMC Networks warrants to the original end-user purchaser that this product, EXCLUSIVE OF SOFTWARE, shall be free from defects in materials and workmanship under normal and proper use in accordance with IMC Networks' instructions and directions for a period of six (6) years after the original date of purchase. This warranty is subject to the limitations set forth below.

At its option, IMC Networks will repair or replace at no charge the product which proves to be defective within such warranty period. This limited warranty shall not apply if the IMC Networks product has been damaged by unreasonable use, accident, negligence, service or modification by anyone other than an authorized IMC Networks Service Technician or by any other causes unrelated to defective materials or workmanship. Any replaced or repaired products or parts carry a ninety (90) day warranty or the remainder of the initial warranty period, whichever is longer.

To receive in-warranty service, the defective product must be received at IMC Networks no later than the end of the warranty period. The product must be accompanied by proof of purchase, satisfactory to IMC Networks, denoting product serial number and purchase date, a written description of the defect and a Return Merchandise Authorization (RMA) number issued by IMC Networks. No products will be accepted by IMC Networks which do not have an RMA number. For an RMA number, contact IMC Networks at PHONE: (800) 624-1070 (in the U.S and Canada) or (949) 465-3000 or FAX: (949) 465-3020. The end-user shall return the defective product to IMC Networks, freight, customs and handling charges prepaid. End-user agrees to accept all liability for loss of or damages to the returned product during shipment. IMC Networks shall repair or replace the returned product, at its option, and return the repaired or new product to the end-user, freight prepaid, via method to be determined by IMC Networks. IMC Networks shall not be liable for any costs of procurement of substitute goods, loss of profits, or any incidental, consequential, and/or special damages of any kind resulting from a breach of any applicable express or implied warranty, breach of any obligation arising from breach of warranty, or otherwise with respect to the manufacture and sale of any IMC Networks product, whether or not IMC Networks has been advised of the possibility of such loss or damage.

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Every reasonable effort has been made to ensure that IMC Networks product manuals and promotional materials accurately describe IMC Networks product specifications and capabilities at the time of publication. However, because of ongoing improvements and updating of IMC Networks products, IMC Networks cannot guarantee the accuracy of printed materials after the date of publication and disclaims liability for changes, errors or omissions.

Table of Contents

About the iMcV-PSE-MidSpan

The iMcV-PSE-MidSpan is an SNMP-manageable, IEEE 802.3af Power over Ethernet (PoE) Injector, used to supply current to a PoE-compliant PD (Powered Device). This makes it the perfect solution when installing compliant PDs such as IP cameras, VoIP phones and other end devices (i.e. the IE-MiniMc media converter) where there is no power source in close proximity. The iMcV-PSE-MidSpan installs between a switch/hub and the device requiring power, providing detection, classification and power sourcing to the Powered Device (PD).

The iMcV-PSE-MidSpan has been designed specifically for use with the iMediaChassis series as well as the unmanaged IE-Mediachassis series. Two RJ-45 ports are provided, one for data and one for a combination of data and a Power over Ethernet (PoE) supply.

Application Diagram

The following diagram shows how the iMcV-PSE-MidSpan would be used with an iMediaChassis in a typical network:
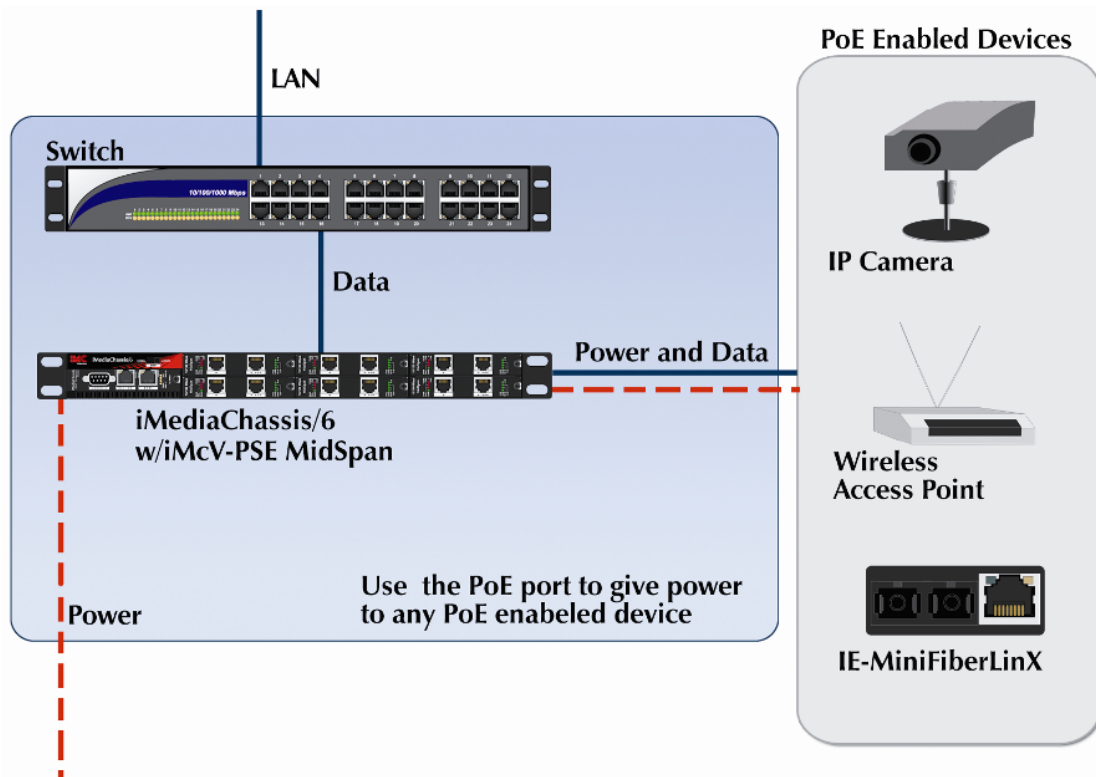
Installation

The iMcV-PSE-MidSpan may be installed into the iMediaChassis series, the IE-MediaChassis or MediaChassis series. Each module will occupy one-slot in the chassis.

NOTE
Due to power limitations in iMediaCenter series chassis, the installation of a PSE-MidSpan into an iMediaCenter chassis is highly discouraged and will void the PSE-MidSpan's warranty. It is not recommended that the iMcV-PSE-MidSpan module be installed in an IE-MediaChassis-1/DC (850-33100). The power source in this chassis is not isolated, and cannot support positive reference ground systems typically used in Telco environments; in addition it can not provide enough power for the module.

To install a module, remove the blank brackets covering the slots (if present) where the module is to be installed by removing the screws on the outside edges of the bracket. Slide the module into the chassis, via the card guides, until the module is seated securely in the connector. Secure the module to the chassis by tightening the captive screw. Save any "blanks" removed during installation for future use should configuration requirements change.

| NOTE |
| --- |
| A 20-slot iMediaChassis should support up to 11 PSE-MidSpans (with AC power) or 9 PSE-MidSpans (with DC power). This limitation applies only to the 20-slot chassis. |

DIP Switch Settings
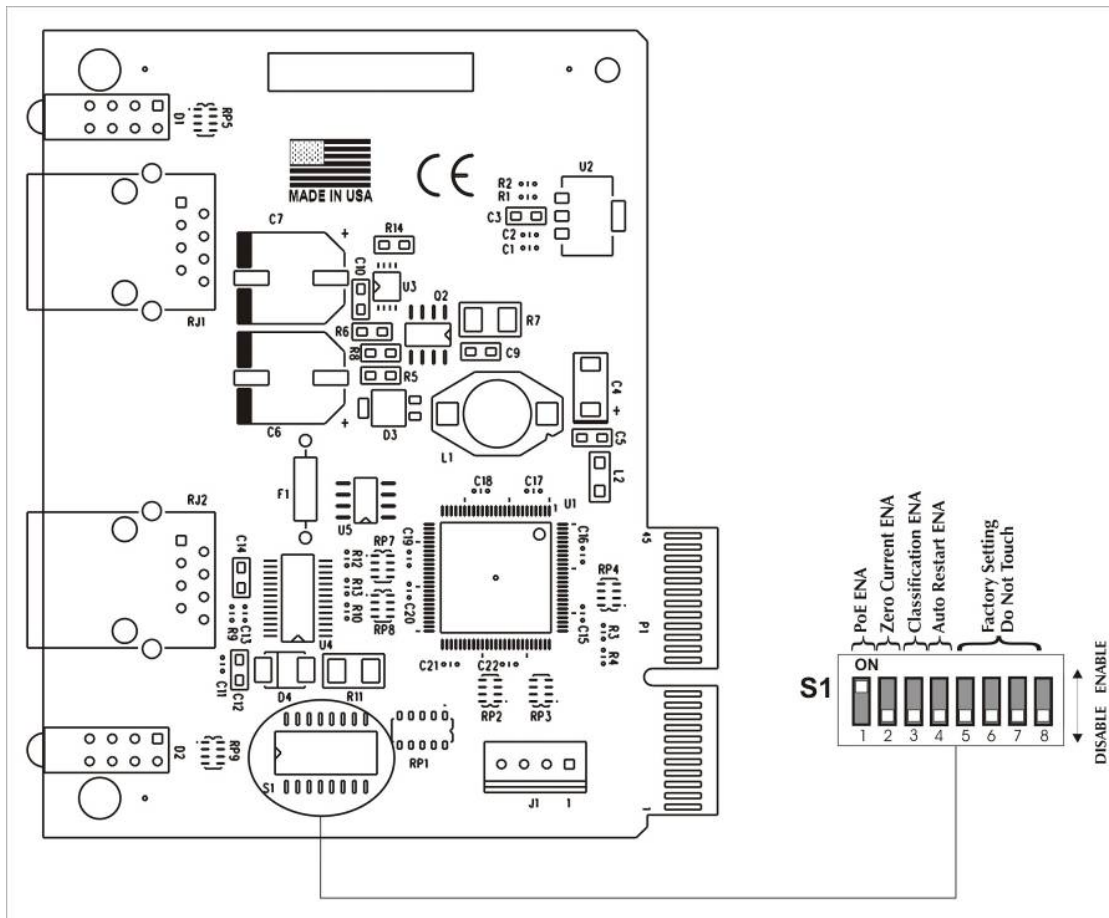
Feature	Switch	Function	Default
PoE ENA	S1	Enables PoE functionality	ON
Zero Current ENA	S2	0 current LED will glow red if no device is connected to the PSE-MidSpan or the PD device is not valid	OFF
Classification ENA	S3	Determines what amount of power the PD device is drawing (4W, 7W or 15W)	OFF
Auto Restart	S4	Device will automatically discover PD device should a power failure occur	OFF
S5-S8 are OFF; Factory default, do not change			

LED Indicators

The iMcV-PSE-MidSpan features device-specific and several diagnostic LEDs. The LED functions are as follows:

PWR FAIL   Glows red when an overcurrent or internal fault is detected within the PSE-MidSpan PoE circuit.

OVER CUR   Glows red when an overcurrent condition lasts for more than 60 ms after power up and/or glows red when an over temperature condition occurs.

PWR   Glows green when power is being supplied to the PSE-MidSpan.

0 CUR   Glows red when there is no device connected to the PSE-MidSpan. Glows red when the device connected to the PSE-MidSpan is NOT a valid PD. The LED is off when the PSE-MidSpan detects a valid PD.

PoE ENB   Glows green when PoE functionality is enabled.

15 W   Glows green when Powered Device consumes 12.95 watts to 15 watts of power (CLASS0 PD).

4W   Glows green when Powered Device consumes 3.84 watts to 4 watts of power (CLASS1 PD).

7W   Glows green when Powered Device consumes 6.49 watts to 7 watts of power (CLASS2 PD).
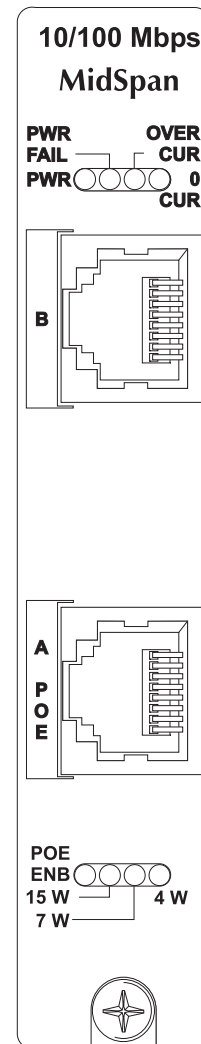
Configuring the iMcV-PSE-MidSpan with iView²

The PSE-MidSpan, when installed in a managed chassis, is configurable through iView² software. To configure the PSE-MidSpan, open the iView2 software and select the chassis in which the PSE-MidSpan has been installed. When Auto Discovery detects the chassis and identifies the PSE-MidSpan, select it to configure or monitor the modules. Software settings always override hardware settings, so DIP Switch settings should be set to match the configuration in the Graphic User Interface (GUI).

The screen that appears will show the PSE-MidSpan's LEDs and settings. The LEDs appear on the left, showing the LEDs as they are displayed on the PSE-MidSpan. The settings, on the right, appear as follows:

Module Number   This displays the slot number in which the PSE-MidSpan has been installed.

Module Type   This space displays the type of module inserted in this slot. The PSE-MidSpan will appear with the name "iMcV MidSpan".

Data Port   Use this field to enter a name for the device connected to the Data Port. Click the Save Changes button to save this name.

POE Data Port   Enter a name for the device connected to this port in the Description field. Then, enable or disable the POE function from the drop-down menu beneath. Click the Save Changes button to save this information to iView².

Installation Troubleshooting

- 0 (Zero) Current LED will glow red when the PSE module is either not connected to a PD device or an over current condition occurs. Be sure the iMcV-MidSpan is connected to a valid PD device.

- In a 20-slot iMediaChassis-AC, the number of modules cannot exceed 11. Overloading the chassis with more than 11 can overload and possibly damage the chassis.

Specifications

Physical Specifications
Dimensions: 4.19″ x .78″ x 2.75″
              (106.4mm x 19.81mm x 69.85mm)

Environmental
Operating Temperature: 32° - 122° F (0° - 50° C)

Storage Temperature:
0° - 160° F (-20° - 70° C)

Humidity:
5 - 95% (non-condensing)

Power
Power Input (Maximum): 3.2A@5VDC

Power Output: 0.3A @ 48 VDC

IMC Networks Technical Support

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Fax:	(949) 465-3020
E-Mail:	techsupport@imcnetworks.com
Web:	www.imcnetworks.com

Electrostatic Discharge Precautions

Electrostatic discharge (ESD) can cause damage to any product, add-in modules or stand alone units, containing electronic components. Always observe the following precautions when installing or handling these kinds of products

1. Do not remove unit from its protective packaging until ready to install.

2. Wear an ESD wrist grounding strap before handling any module or component. If the wrist strap is not available, maintain grounded contact with the system unit throughout any procedure requiring ESD protection.

3. Hold the units by the edges; do not touch the electronic components or gold connectors.

4. After removal, always place the boards on a grounded, static-free surface, ESD pad or in a proper ESD bag. Do not slide the modules or stand alone units over any surface.

> **WARNING!** Integrated circuits and fiber optic components are extremely susceptible to electrostatic discharge damage. Do not handle these components directly unless you are a qualified service technician and use tools and techniques that conform to accepted industry practices.

CE: The products described herein comply with the Council Directive on Electromagnetic Compatibility (2006/108/EC). For further details, contact IMC Networks.

$$C\,E$$

European Directive 2002/96/EC (WEEE) requires that any equipment that bears this symbol on product or packaging must not be disposed of with unsorted municipal waste. This symbol indicates that the equipment should be disposed of separately from regular household waste. It is the consumer's responsibility to dispose of this and all equipment so marked through designated collection facilities appointed by government or local authorities. Following these steps through proper disposal and recycling will help prevent potential negative consequences to the environment and human health. For more detailed information about proper disposal, please contact local authorities, waste disposal services, or the point of purchase for this equipment.
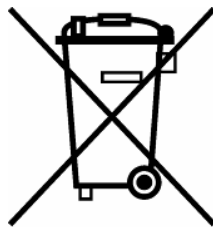
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